

INFORMATION TECHNOLOGY DEPARTMENT

Fiscal Year 2007

This year the Information Technology (IT) Department again made measurable progress in the area of technology consolidation and standardization. The technology revolution once again did not show any sign of slowing, and the result was another significant increase in Department service levels and additional devices and software systems needing to connect and communicate over the Town's technology infrastructure. The IT Department has identified consolidation and standardization as a critical element in ensuring that Department responsibilities can continue to increase at a slower rate than annual operating expenses and staffing levels.

One of the additional responsibilities the IT Department took on this year was a grant-funded system enabling the Amherst Police Department to share and query master names and report information to other police agencies in the region. This system, called Cross Agency, provides officers with more information while mobile, improving officer safety and allowing officers to make more informed decisions during motor vehicle stops.

Another added responsibility this year was the newly installed Ambulance Patient Care and Billing system. This system consists of wireless touch-screen laptops in all ambulances for patient care, which synchronize almost instantly to the Town's new billing system used by the Collector's office. This system not only improves patient care, but also eliminates redundancies in the completion and transcriptions of paper forms and information by EMTs.

As more and more demands are put on departments and staff, the need for automation and citizen self-service also increases. This year, for the first time, the IT Department took a paper form and created an online-only replacement. Submitting a Citizen Activity Form is required of all individuals interested in volunteering on a board or committee. With the new online-only Citizen Activity Form, submissions are automatically routed to the correct groups for review, and notifications are automatically sent back to the submitter. This system has proven successful, and in the coming year the IT Department plans to require all job applications be completed and submitted online.

One of the most significant achievements the IT Department completed this year was the installation and testing of the first large-scale Community Wireless Mesh network in Massachusetts. When complete, roughly one square mile of downtown Amherst was covered in Public Wi-Fi by almost 30 strategically placed access points. This centrally managed system covers the inside of all Town-owned buildings in the downtown area as well as the streets and common areas. Users can connect to this system without registration and browse the internet and check e-mail at speeds most home users couldn't afford otherwise. We believe this will prove to be an integral part of the community and we are excited about the possibilities this system will foster.

One of the more involving projects the IT Department completed this year was the Public Safety Communications Center overhaul. While dispatchers worked in a temporary space, all systems and furniture in the Communications Center were removed and replaced. All radio systems, video systems, and door access systems were migrated to a completely computer-based environment. When dispatchers returned to their new Communications Center, they were greeted with eight LCD monitors per workstation and the absence of any physical radio buttons.

The new systems will provide improved efficiency for dispatchers and ultimately improved public safety for the citizens of Amherst.

This year the IT Department for the first time had the opportunity to work with Google on some GIS-related initiatives. First, Google accepted Amherst's high resolution digital aerial imagery into its Google Maps and Google Earth database, making Amherst the highest resolution online community in Massachusetts. Second, using Google's SketchUp tools, we were able to upload our comprehensive 3D dataset into Google's database, allowing public viewing of downtown Amherst in 3D.

As more and more technology systems have been added, the IT Department has been mindful of the increase in energy consumption required. To deal with this, the Department took several steps towards minimizing energy consumption, including ongoing optimization of Windows XP desktops and laptops to automatically power off monitors and initiate low-power consumption mode during inactivity, purchasing flat panel monitors, and purchasing only EPA Energy Star-compliant devices. The Department attempts to set an example in making choices and implementing technologies which are environmentally sensitive.

In addition to the many projects completed this year, the IT Department worked diligently behind the scenes, maintaining, repairing, and updating current systems. With the ever-increasing amount of "junk" e-mail and the constant threat of viruses and hackers, software upgrades to servers, PCs and other technology systems become a daily necessity. The IT Department maintains several layers and types of specialized security hardware and software, lowering the risk of unauthorized network intrusion and viruses. The Department also maintains a variety of backup systems, both onsite and offsite, ensuring that, in a disaster, the Town's information and systems would be safe.

Citizen expectation of a more open and digitally accessible government continues to increase. In the coming year, the IT Department will continue to maintain software and infrastructure standards, extend more information and tools to constituents via the Town's websites, provide departments, boards and committees with the necessary technologies to perform primary functions that operate efficiently, and leverage new technologies in ways which will serve Amherst residents for years to come.

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